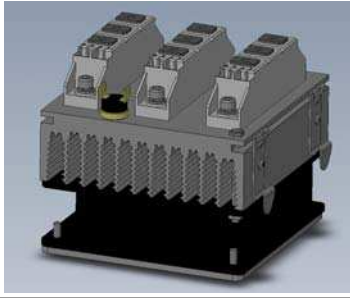


SKS 160F B6C 80 V16



SEMISTACK Thyristor

Three-phase controlled bridge rectifier

SKS 160F B6C 80 V16

Preliminary Data

Features

- Px120/120F heatsink
- Isolated base modules
- Forced air cooled

Typical Applications

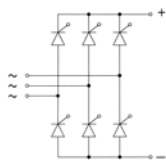
- Industrial rectifiers
- AC controller

Options

- RC board

No. 08755362

Characteristics					
Symbol	Conditions	min.	typ.	max.	Unit
Electrical Data					
I_d	$T_{amb} = 35^\circ\text{C}$	no overload		159	A
		150 % overload, 60s every 10 min.	119	178	A
		200 % overload, 60s every 10 min.	107	214	A
V_{CES}				1600	V
V_{DC}	-			-	V
V_{AC}	network voltage (line side), -20% / +15%			400	V
V_{isol}	50 Hz / 1 min.		2500		V
i^2t	$T_{vj} = 25^\circ\text{C}$			20	kA^2s
	$T_{vj} = 125^\circ\text{C}$			15	kA^2s
$(di/dt)_{cr}$	$T_{vj} = 125^\circ\text{C}$			125	$\text{A}/\mu\text{s}$
$(dv/dt)_{cr}$				1000	$\text{V}/\mu\text{s}$
V_{GT}		3			V
I_{GT}		150			mA
P_{tot}	$T_{amb} = 35^\circ\text{C}$		389		W
R_{thja}	per component		1.39		K/W
T_{vj}		-40		125	$^\circ\text{C}$
Fuse	No fuse		-		A
RC	No RC		-		Ω
RC	No RC		-		μF
Thermal trip	normally closed		85		$^\circ\text{C}$
Mechanical Data					
dv/dt_{AIR}			159		m^3/h
w	approx. total weight		2.1		kg
Size	Width x Depth x Height (with fan)	120	120	120	mm
T_{stg}		-40		100	$^\circ\text{C}$
T_{amb}		-20		60	$^\circ\text{C}$
Altitude	Installation height w/o derating			1000	m
Protection			IP00		
Pollution	EN 50178		2		
Fan Data					
Fan	included in the stack (YES)				
Type	SKF 3-230-01				
V_{Fan}	Fan voltage		230		V
f_{FAN}	Fan frequency		50		Hz
I_{FAN}	Fan current		0.12		A
P_{FAN}	Fan power		15		W



B6C

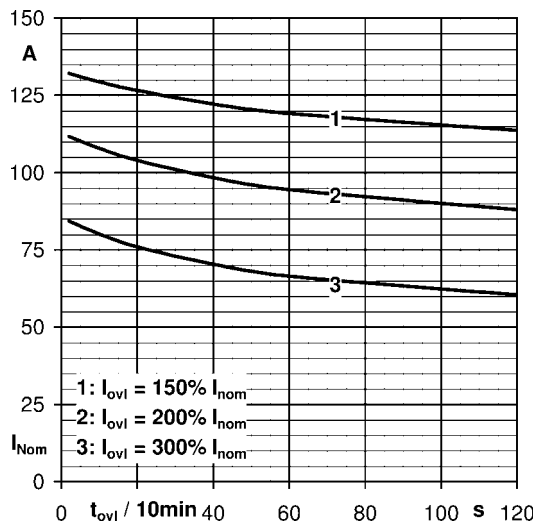


Fig. 1 Maximal overload factor vs nom current and ovl duration, $T_{amb} = 35^\circ C$

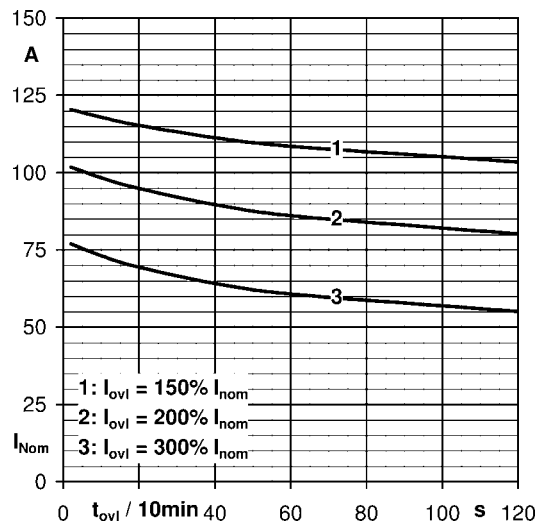


Fig. 2 Maximal overload factor vs nom current and ovl duration, $T_{amb} = 45^\circ C$

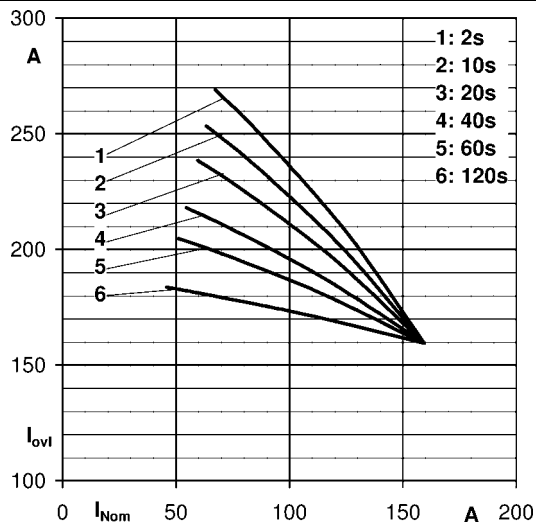


Fig. 3 Maximal overload duration vs nom current and ovl factor, $T_{amb} = 35^\circ C$

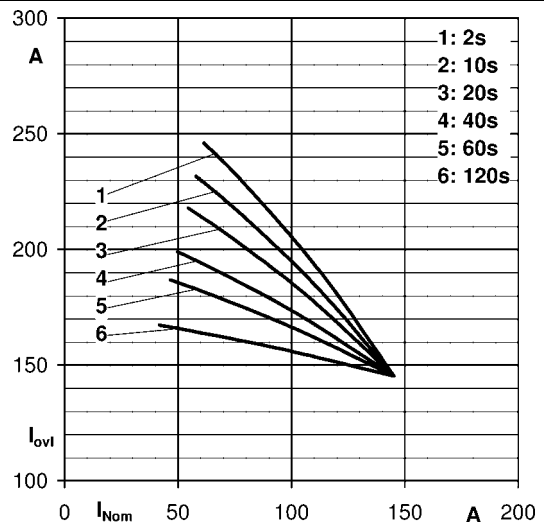


Fig. 4 Maximal overload duration vs nom current and ovl factor, $T_{amb} = 45^\circ C$

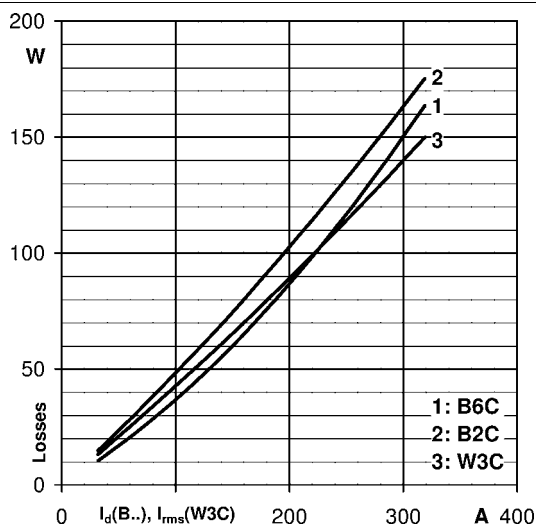


Fig. 5 Power losses

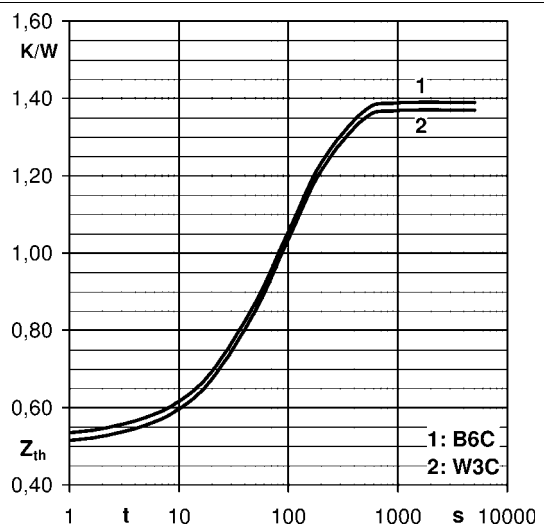
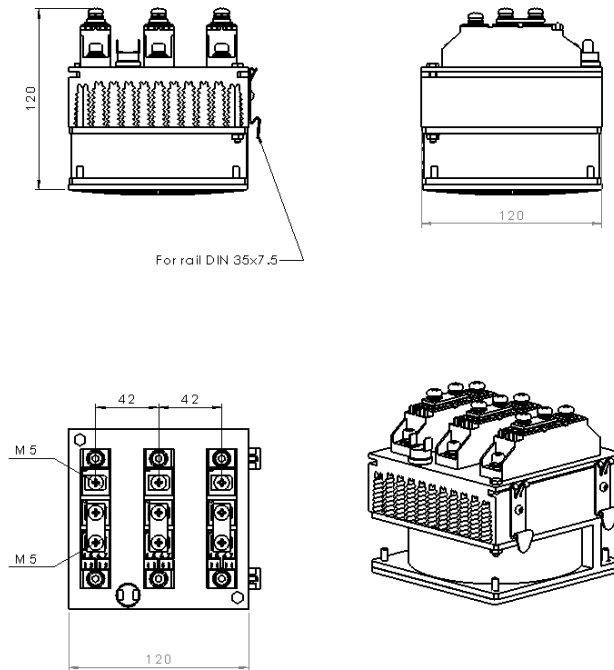


Fig. 6 Thermal impedance $Z_{th}(j-a)$

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Note: Stack design may vary depending upon the version. Please contact SEMIKRON for further details.

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